

7. GASOLINE VAPOR RECOVERY

SUGGESTED VAPOR RECOVERY RULES

APPROVED APRIL 17, 1975

AMENDED NOVEMBER 22, 1977

AMENDED AUGUST 9, 1978

State of California  
AIR RESOURCES BOARD

SUGGESTED VAPOR RECOVERY RULES

RULE A Transfer of Gasoline into Stationary Storage Containers

1. (a) A person shall not transfer or permit the transfer of gasoline from any delivery vessel (i.e., tank truck or trailer) into any stationary storage container with a capacity of more than 250 gallons unless such container is equipped with a permanent submerged fill pipe and unless 95 percent by weight of the gasoline vapors displaced during the filling of the stationary storage container are prevented from being released to the atmosphere.
- (b) The provisions of this Section shall be subject to the following exceptions:
  - (A) The transfer of gasoline into any stationary storage container used primarily for the fueling of implements of husbandry as such vehicles are defined in Division 16 (Section 36000 et seq.) of the California Vehicle Code, if such container is equipped with a permanent submerged fill pipe.
  - (B) The transfer of gasoline into any stationary storage container having a capacity of 2,000 gallons or less which was installed prior to July 1, 1975, if such container is equipped with a permanent submerged fill pipe.
  - (C) The transfer of gasoline into any stationary storage container in existence prior to July 1, 1975 when such container is served by a delivery vessel exempted by the Air Pollution

Control Officer pursuant to Section 3(a) of this Rule, if such container is equipped with a permanent submerged fill pipe.

- (D) The transfer of gasoline into any stationary storage container which the Air Pollution Control Officer finds is equipped with equipment to control emissions at least as effectively as required by this Section.
- (E) The transfer of gasoline into any stationary storage container in existence prior to July 1, 1975 which is equipped with an offset fill pipe if such container is equipped with a permanent submerged fill pipe.
- (F) The transfer of gasoline into any stationary storage container not exempted by Section 1(b)(A), 1(b)(B), 1(b)(C), 1(b)(D), or 1(b)(E) at any gasoline dispensing facility installed prior to the effective date of this regulation for which the total monthly throughput of the facility does not exceed 9,000 gallons, provided that the owner or operator of such dispensing facility transfers or permits the transfer of gasoline from any delivery vessel (i.e., tank truck or trailer) into any stationary storage container with a capacity of more than 250 gallons only if such container is equipped with a permanent submerged fill pipe and only if 90 percent by weight of the gasoline vapors displaced during the filling of the stationary storage container are prevented from being released to the atmosphere.

2. No person shall store gasoline in or otherwise use or operate any gasoline delivery vessel unless such vessel is designed and maintained to be vapor tight. Any delivery vessel into which gasoline vapors have been transferred shall be filled only at a loading facility that is equipped with a system that prevents at least 95 percent by weight of the gasoline vapors displaced from entering the atmosphere.
  
3. (a) The owner or operator of any bulk loading facility not subject to the provisions of Rule C which was in operation on or before July 1, 1975, and for which the annual throughput to stationary storage containers that are not exempted by Sections 1(b)(A) and 1(b)(B) does not exceed 500,000 gallons, may petition the Air Pollution Control Officer to have the facility's delivery vessels and other independently owned gasoline delivery vessels which are exclusively serviced at such facility exempted from the provisions of Section 2. The owner or operator of such a facility must petition annually to renew such exemptions.  
  
(b) A person shall not load gasoline into any delivery vessel from any loading facility granted an exemption pursuant to Section 3(a) of this Rule unless such delivery vessel is loaded through a submerged fill pipe.  
  
(c) A person shall not operate any gasoline loading facility which is not subject to the provisions of Rule C unless:  
  
(A) The facility is equipped with a system or systems to prevent the release to the atmosphere of at least 95 percent by weight of the gasoline vapors displaced during the filling of the facility's stationary storage containers; and

- (B) The facility is equipped with a pressure-vacuum valve on the above ground stationary storage containers with a minimum pressure valve setting of 8 ounces, provided that such setting will not exceed the container's maximum pressure rating.
4. (a) The owner or operator of any stationary storage container or gasoline loading facility which is subject to this Rule and which is installed or constructed on or after the effective date of this regulation shall comply with the provisions of this Rule at the time of installation.
5. Vapor-return and/or vapor recovery systems used to comply with the provisions of this Rule shall comply with all safety, fire, weights and measures, and other applicable codes and/or regulations.
6. (a) For the purposes of this Rule, the term "gasoline" is defined as any petroleum distillate having a Reid Vapor pressure of 4 pounds or greater.
- (b) For the purposes of this Rule "gasoline vapors" means the organic compounds in the displaced vapors including any entrained liquid gasoline.
- (c) For the purposes of this Rule, the term "submerged fill pipe" is defined as any fill pipe, the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the container. "Submerged fill pipe" when applied to a container which is loaded from the side is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18 inches above the bottom of the container.

RULE B: Transfer of Gasoline into Vehicle Fuel Tanks

1. (a) A person shall not transfer or permit the transfer of gasoline from a stationary storage container subject to the provisions of Section 1 of Rule A into any motor vehicle fuel tank with a capacity of greater than 5 gallons unless such transfer is made in a manner by which the emissions to the atmosphere of the gasoline vapors displaced during filling of the vehicle fuel tank are reduced by at least 95 percent by weight.
  - (b) The provisions of Section 1(a) shall be subject to the following exemption. The transfer of gasoline into motor vehicle fuel tanks at any dispensing facility installed or in the process of being installed before these regulations becoming effective and for which the monthly throughput is less than 50,000 gallons but greater than 2,000 gallons, shall be made in a manner by which the emissions to the atmosphere of the gasoline vapors displaced during the filling of the vehicle fuel tanks are reduced by at least 90 percent by weight.
2. Any gasoline dispensing system subject to this Rule, whose monthly throughput is greater than 10,000, installed after the effective date of these regulations shall comply with the provisions of this Rule at the time of installation. Any gasoline dispensing system whose monthly throughput is equal to or less than 10,000 installed after the effective date of these regulations shall comply with the provisions of this Rule with the exception that the gasoline vapors displaced during filling of the vehicle fuel tank need be reduced by at least 90 percent by weight.

3. (a) Any gasoline dispensing system subject to this Rule, installed or in the process of being installed prior to the effective date of these regulations shall comply with the provisions of this Rule as shown in Table I and the owner or operator of such system shall comply with the following schedule:
- (A) By 150 days before compliance date - Apply for an authority to construct from the Air Pollution Control Officer for the installation of the needed control system;
  - (B) By 120 days before compliance date - Submit to the Air Pollution Control Officer evidence that all necessary contracts for the design, procurement, and installation of the required emissions control systems have been negotiated and signed, or evidence that orders for the purchase of component parts necessary to accomplish the necessary emission control have been issued;
  - (C) By 90 days before compliance date - initiate on-site construction or installation of emission control equipment.
  - (D) By 30 days before compliance date - Complete on-site construction or installation of emission control equipment; and
  - (E) By compliance date as shown in Table I - Secure the Air Pollution Control Officer's approval of all equipment and a permit to operate.

Table 1

Existing Service Stations  
Phase II Implementation Schedule  
(Months to Achieve Compliance After Effective Date of Regulation)

Volume Gals/Month 10 <sup>3</sup>	MAJORS	LARGE INDEPENDENTS	SMALL INDEPENDENTS
	In Months	In Months	In Months
> 150	6	36 (6)	39 (6)
150 ↔ 125	6	36 (6)	39 (6)
125 ↔ 100	6	36 (6)	42 (6)
100 ↔ 75	9	36 (9)	42 (9)
75 ↔ 50	12	36 (12)	42 (12)
50 ↔ 40	(12)	(12)	(12)
40 ↔ 30	(15)	(15)	(15)
30 ↔ 20	(18)	(18)	(18)
20 ↔ 10	(18)	(18)	(18)
10 ↔ 2	(24)	(24)	(24)
2 ↔ 0	TBD	TBD	TBD

Legend: Numbers without parenthesis = months to achieve 95%  
 Numbers with parenthesis = months to achieve 90%  
 TBD = To be determined

4. Gasoline dispensing equipment used to comply with the provisions of this Rule shall comply with all applicable safety, fire, weights and measures, and other applicable codes and/or regulations.
5. (a) For the purposes of this Rule, the term "gasoline" is defined as any petroleum distillate having a Reid vapor pressure of 4 pounds or greater.
  - (b) For the purposes of this Rule "motor vehicle" is defined as any vehicle registered with the California Department of Motor Vehicles.
  - (c) For purposes of this Rule, an "independent marketer" is defined as a person engaged in the marketing of gasoline and who would be required to pay for procurement and installation of vapor recovery equipment under Rule B, or the operator of any gasoline dispensing device subject to this Rule, unless such person --
    - (A) (i) is a refiner, or
    - (ii) controls, is controlled by, or is under common control with, a refiner,
    - (iii) is otherwise directly or indirectly affiliated with a refiner or with a person who controls, is controlled by, or is under a common control with a refiner (unless the sole affiliation referred to herein is by means of a supply contract or an agreement or contract to use a trademark, trade name, service mark, or other identifying symbol or name owned by such refiner or any such person), or

- (B) receives less than 50 percent of his annual income from refining or marketing of gasoline, and is not a "franchisee" as defined by Section 21140 of the California Business and Professions Code.
- (d) For the purposes of this Rule, the term "refiner" shall not include (A) anyone whose total refinery capacity (including the refinery capacity of any person who controls, is controlled by, or is under common control with, such refiner) does not exceed 65,000 barrels per day; or (B) anyone whose refinery does not obtain directly or indirectly crude oil from producers who control, are controlled by, or are under common control with, such refiner.
- (e) For the purpose of this Rule, 'control' of a corporation means ownership of more than 50 percent of its stock.
- (f) For the purposes of this Rule a "major marketer" is defined as a person engaged in the marketing of gasoline who would be required to pay for procurement and installation of vapor recovery equipment under Rule B, or is a government agency, and such person is not an independent marketer as defined in this Rule.
- (g) For the purposes of this Rule a "small independent marketer" is defined as an independent marketer with a total gasoline retail sales of less than 3,500,000 gallons per month.

- (h) For the purposes of this Rule "existing station" is defined as a dispensing facility installed or in the process of being installed prior to November 22, 1977.
- (i) For the purposes of this Rule "new station" is defined as a dispensing facility installed on or after November 22, 1977.

RULE C: Transfer of Gasoline into Tank Trucks, Trailers, and Railroad Tank Cars at Loading Facilities

1. (a) A person shall not load gasoline into any tank truck, trailer, or railroad tank car from any loading facility having an annual throughput of 5,000,000 gallons or more unless the loading facility is equipped with a vapor collection and disposal system or its equivalent approved by the Air Pollution Control Officer.

Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor collection system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.

- (b) The vapor disposal portion of the vapor collection and disposal system shall consist of one of the following:

(A) An adsorber system or, condensation system, incineration system or combination system which processes all vapors and which limits the emission of gasoline vapors and gases to no more than:

- (1) 0.6\* pounds per thousand gallons of gasoline transferred, for installations made after November 22, 1977, or
- (2) 0.9\* pounds per 1,000 gallons of gasoline transferred for installations existing prior to January 1, 1972, and 0.6\* pounds for 1,000 gallons of gasoline transferred for these existing installations by July 1, 1982, or

- (3) 0.9\* pounds per 1,000 gallons of gasoline transferred for installations existing prior to November 22, 1977, and installed after January 1, 1972, and 0.6\* pounds per 1,000 gallons of gasoline transferred for these existing installations by July 1, 1985.
- (B) A vapor handling system which directs all vapors to a fuel gas system.
- (C) Other equipment of an efficiency equal to or greater than Section 1(b)(A) or Section 1(b)(B) if approved by the Air Pollution Control Officer.

"Loading facility" shall mean any aggregation or combination of gasoline loading equipment which is both (1) possessed by one person, and (2) located so that all the gasoline loading outlets for such aggregation or combination of loading equipment can be encompassed within any circle of 300 feet in diameter.

\* As determined by rounding to the nearest tenth using two significant figures.

RULE D: Storage of Petroleum Products at Terminals and Large Bulk Loading Facilities

A person shall not place, store or hold in any stationary tank, reservoir or other container of more than 40,000 gallons capacity gasoline unless such tank, reservoir or other container is a pressure tank maintaining working pressures sufficient at all times to prevent gasoline vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, in good working order and in operation:

- (A) A floating roof of an approved type meeting the requirements of Rule 463 of the South Coast Air Quality Management District. The control equipment provided for in this paragraph shall not be used if the gasoline has a vapor pressure of 11.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging and sampling devices shall be gas tight except when gauging or sampling is taking place.
- (B) A vapor recovery system, of efficiency equivalent to a floating roof meeting the requirements of (A) above, consisting of a vapor gathering system capable of collecting the gasoline vapors and gases discharged and a vapor disposal system capable of processing such gasoline vapors and gases so as to prevent their emissions to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.

(C) Other equipment of equal efficiency, provided such equipment is submitted to and approved by the Air Pollution Control Officer.

8. MANUFACTURED METAL PARTS AND  
PRODUCTS COATING

MODEL RULE FOR THE CONTROL OF VOLATILE  
ORGANIC COMPOUND EMISSIONS FROM THE  
SURFACE COATINGS OF MANUFACTURED METAL  
PARTS AND PRODUCTS

(JANUARY 2, 1979)

State of California  
AIR RESOURCES BOARD

MODEL RULE FOR THE CONTROL OF  
VOLATILE ORGANIC COMPOUND EMISSIONS FROM  
THE SURFACE COATING OF MANUFACTURED  
METAL PARTS AND PRODUCTS

January 2, 1979

1. Definitions

- a. *"Manufactured Metal Parts and Products" include any metal parts or products manufactured under the Standard Industrial Classification code of Major Group 25 (furniture and fixtures), Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (non-electrical machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), Major Group 39 (miscellaneous manufacturing industries)."*
- b. *"Volatile Organic Compound (VOC)" means any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate as determined by an ARB approved reference test method.*
- c. *"Forced Air Dried" means a process whereby the coated object is heated above ambient temperature up to a maximum of 90° Celsius to decrease drying time.*
- d. *"Transfer Efficiency" means the ratio of the amount by volume of coating which is deposited on the object to be coated to the amount by volume of coating sprayed expressed as a percentage.*
- e. *"Touch Up" means that portion of the coating operation which is incidental to the main coating process but necessary to cover minor imperfections or to achieve coverage as required.*

f. "Repair" means recoating portions of previously coated product due to mechanical damage to the coating following normal painting operations.

2. Emissions Standards

Except as otherwise provided in Section 4, this rule is applicable to the coating of any manufactured metal parts and products excluding automobiles, light-duty trucks, aircraft, aerospace vehicles, marine vessels, cans, coils, and magnetic wire.

a. After January 1, 1982, a person shall not use or apply any coating on any manufactured metal part or product subject to the provision of this regulation which emits or may emit volatile organic compounds into the atmosphere in excess of the following limits:

VOC Limitation  
(grams per liter of coating)  
(applied excluding water)

Air Dried or  
Forced Air Dried

Baked

340

275

b. New Sources

A person shall not use or apply any oven-baked coating on any manufactured metal part or product subject to the provisions of this regulation which emits or may emit volatile organic compounds into the atmosphere in excess of 180 grams per liter of coating applied excluding water on any application line for which a permit to build, erect, or install is required after January 1, 1982.

c. Before January 1, 1982, the amount of volatile organic compounds which may be emitted from any manufactured metal part or product coating application line shall be re-evaluated to determine whether another limit is justified.

d. The emission limits prescribed in this section shall be achieved by:

(1) The use of low-solvent coating; or

(2) Any other emission reduction process determined by the Air Pollution Control Officer to be as effective as (1).

3. Application Equipment Requirements

Except as otherwise provided in Section 4, after January 1, 1982, a person shall not use or operate any coating application equipment subject to the provisions of this regulation that does not provide transfer efficiency equal to or greater than 65 percent. The application of coatings by electrostatic attraction shall be deemed to constitute compliance with this requirement.

4. Exemptions

a. The provisions of this rule shall not apply to coatings which emit or may emit volatile organic compounds in excess of the specified limits provided that the total emissions from the use of such coatings do not exceed 20 pounds in any one day.

b. The provisions of Section 3 shall not apply to touch-up and repair.

9. MARINE LIGHTERING OPERATIONS

MODEL RULE FOR THE CONTROL OF EMISSIONS  
FROM LIGHTERING OPERATIONS  
(REVISED JULY 1978)

State of California

AIR RESOURCES BOARD

Model Rule for the Control of Emissions from Lightering Operations

REVISED: July, 1978

(a) Definitions

(1) "California Coastal Waters" means that area between the California coastline and a line starting at the California-Oregon border at the Pacific Ocean,

Thence to	42.0 <sup>0</sup> N	125.5 <sup>0</sup> W
Thence to	41.0 <sup>0</sup> N	125.5 <sup>0</sup> W
Thence to	40.0 <sup>0</sup> N	125.5 <sup>0</sup> W
Thence to	39.0 <sup>0</sup> N	125.0 <sup>0</sup> W
Thence to	38.0 <sup>0</sup> N	124.5 <sup>0</sup> W
Thence to	37.0 <sup>0</sup> N	123.5 <sup>0</sup> W
Thence to	36.0 <sup>0</sup> N	122.5 <sup>0</sup> W
Thence to	35.0 <sup>0</sup> N	121.5 <sup>0</sup> W
Thence to	34.0 <sup>0</sup> N	120.5 <sup>0</sup> W
Thence to	33.0 <sup>0</sup> N	119.5 <sup>0</sup> W
Thence to	32.5 <sup>0</sup> N	118.5 <sup>0</sup> W

and ending at the California-Mexican border at the Pacific Ocean.\*

(2) "Emission control equipment" means any equipment used to reduce or to accomplish a reduction in emissions of air pollutants from a vessel.

\* At this time, the model rule is not intended to be applicable in the California Coastal Waters north of a line extending from 39<sup>0</sup>N 125<sup>0</sup>W to the coast at the Sonoma-Mendocino County line.

- (3) "Lighter" means any vessel which receives organic liquid cargo, except bunker fuel, during a lightering operation.
  - (4) "Lightering" means the transfer of organic liquid cargo, except bunker fuel, from one vessel (the "parent" vessel) into another vessel (the "lighter" vessel).
  - (5) "Operation" means any activity of any vessel including, but not limited to, cargo loading and unloading, lightering, ballasting, venting, purging, gas-freeing, tank washing, maneuvering, cruising, hotelling, towing, maintaining, and repairing.
  - (6) "Operate" means to perform an operation.
  - (7) "Organic liquid" means any petroleum liquid containing carbon and hydrogen including, but not limited to, crude oil and petroleum distillates.
  - (8) "Organic vapor" means any vaporized component or components of an organic liquid.
  - (9) "Vessel" means any tugboat, tanker, freighter, barge, or any other boat or ship, except those used primarily for recreation.
- (b) Emissions of Sulfur Compounds
- (1) No owner or operator of a lighter shall operate or allow the operation within California Coastal Waters of any lighter during a voyage on which a lightering operation is conducted unless such vessel burns a fuel having a sulfur content of not more than 0.5 percent by weight while in California Coastal Waters.
  - (2) The prohibition of subsection (b)(1) shall not apply to a lighter if the emissions of sulfur compounds emitted into the atmosphere from the lighter are not greater than those which would be emitted by using a fuel which complies with subsection (b)(1).

(3) Any lighter which is subject to the provisions of subsection (b)(1) or (b)(2) shall, for the purpose of determining compliance, have installed and in operation by April 1, 1979, sealed monitoring instruments approved by the Executive Officer (or Air Pollution Control Officer) of the District which shall continuously detect and record whether such vessel is in compliance with subsections (b)(1) and (b)(2) hereof. Means shall be provided to prevent such detection and recording systems from being disconnected or rendered inoperable. Data and information recorded by such instruments shall be kept on the vessel and such data shall be made available for inspection upon request by the Executive Officer (or Air Pollution Control Officer) of the District, or by the Executive Officer of the Air Resources Board, or by their authorized representatives. The provisions of subsections (f)(1) and (f)(2) of this Rule shall not be applicable to this subsection (b)(3).

(c) Emissions from Loading Organic Liquid into Lighters

(1) No owner or operator of a lighter shall load or allow the loading of organic liquid into any lighter during a lightering operation within California Coastal Waters after January 1, 1981, unless the weight of non-methane organic vapors emitted during the loading of each 1,000 barrels of organic liquid is reduced by at least 95 percent from uncontrolled conditions, except that no owner or operator of a lighter shall be required, pursuant to this subsection, to reduce non-methane organic gas emissions to less than 2.0 pounds per 1,000 barrels of organic liquid loaded.

(2) The owner or operator of any lighter subject to subsection (c)(1) of this Rule shall:

(A) Demonstrate, prior to the effective date of such subsection, to the satisfaction of the Executive Officer (or Air Pollution Control Officer) of the District by means of emissions tests, engineering evaluation, or other means of reasonable precision and accuracy that the control practices or equipment selected to achieve compliance will reduce the organic vapor emissions to the extent required by said subsection;

and

(B) Provide fittings, couplings, apertures, access platforms, and/or other equipment and features as required by the Executive Officer (or Air Pollution Control Officer) of the District necessary to facilitate source testing for determining the effectiveness of emission control equipment or emission control practices on a routine basis.

(d) Emissions from Cargo Tanks of Lighters

(1) No owner or operator of a lighter shall perform or allow the performance of any operation, other than loading or unloading of cargo, within California Coastal Waters on any lighter, during a voyage on which a lightering operation is conducted, which would result in the release into the atmosphere of non-methane organic vapors from the cargo tanks of such vessel.

(2) Lighters subject to the provisions of subsection (d)(1) shall, for the purpose of determining compliance, have installed and in operation by April 1, 1979, sealed monitoring instruments approved by the Executive Officer (or Air Pollution Control Officer) of the District which shall detect and record the date, time, and duration of any operation, other than cargo loading, within

California Coastal Waters that would result in the release into the atmosphere of organic vapors from the vessel's cargo tanks. Means shall be provided to prevent such detection and recording systems from being disconnected or rendered inoperable. Data and information recorded by such instruments shall be kept on the vessel with the vessel's oil record book and such data and record book shall be made available for inspection upon request by the Executive Officer (or Air Pollution Control Officer) of the District, or by the Executive Officer of the Air Resources Board, or by their authorized representatives. The provisions of subsections (f)(1) and (f)(2) of this Rule shall not be applicable to this subsection (d)(2).

- (3) The prohibitions of this subsection shall not apply to the release of organic vapors into the atmosphere from cargo tank pressure relief valves resulting from ambient air diurnal temperature and barometric pressure changes and sea water temperature changes, provided such valves are properly installed, maintained, and operated.

(e) Nothing in this Rule shall be construed to:

- (1) Require any act or omission that would be in violation of any regulation or other requirement of the United States Coast Guard; or
- (2) Prevent any act or omission that is necessary to secure the safety of the tanker or other vessels or for saving life at sea provided, however, that this provision is subject to the following condition:

If a vessel, for reasons set forth above in subsection (e) which could not be reasonably foreseen, does not comply with the requirements of this Rule, a report substantiating

the justification for each such instance of non-compliance shall be submitted by the operator of the vessel within 14 days of the occurrence to the Executive Officer (or Air Pollution Control Officer) of the District with a copy to the Executive Officer of the Air Resources Board. If the Executive Officer (or Air Pollution Control Officer) of the District finds that the reason for non-compliance with the Rule was not permissible under the provisions of this subsection (e), such vessel shall be deemed to be in violation of this Rule.

(f) Compliance Schedule

- (1) Unless otherwise specified in this Rule, vessels which are capable of complying with any subsection of this Rule without the construction or installation of additional emission control equipment shall be in compliance with such subsection of this Rule by October 1, 1978.
- (2) The owner or operator of a lighter for which construction or installation of emission control equipment is required to comply with any subsection of this Rule shall demonstrate by October 1, 1978, or at least 30 days prior to any proposed operation subject to this Rule, whichever is later, to the Executive Officer (or Air Pollution Control Officer) of the District and to the Executive Officer of the Air Resources Board that such construction or installation is necessary. Such lighter shall comply with every subsection of this Rule as expeditiously as practicable but in any event no later than January 1, 1981, and shall fulfill the following increments of progress:

- (A) Prior to January 1, 1979. Submit to the Executive Officer (or Air Pollution Control Officer) of the District a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this Rule. The schedule must show completion of the construction and equipment installation phases of the plan prior to November 1, 1980, and compliance with this Rule by January 1, 1981. If the Executive Officer (or Air Pollution Control Officer) of the District finds that the final control plan will not result in compliance as expeditiously as practicable, the subject vessel shall be deemed in violation of this subsection until such time as an acceptable plan is submitted.
- (B) Prior to March 1, 1979. Negotiate and sign initial contracts for the construction or installation of emission control equipment, or issue orders for the purchase of component parts to accomplish emission control.
- (C) Prior to November 1, 1980. Complete construction or installation of emission control equipment or component parts to accomplish emission control as indicated on the construction schedule submitted with the final control plan.
- (D) By January 1, 1981. Be in final compliance with the provisions of this Rule.
- (3) The non-availability of specific emission control equipment or of a specific emission control system or method to be used for the purpose of achieving compliance with any provision of this

Rule shall not constitute relief from such provision if other types of emission control equipment, systems, or methods acceptable to the Executive Officer (or Air Pollution Control Officer) of the District are available.

- (4) A requirement to construct or install emission control equipment for the purpose of achieving compliance with any subsection of this Rule shall not constitute relief from the requirement for a lighter to comply with any other subsection of this Rule for which the construction or installation of emission control equipment is not required.
- (5) An extension of the October 1, 1978 compliance date shall not be granted for the elimination of organic vapor emissions caused by ballasting into cargo tanks unless dedication or permanent filling of certain cargo or ballast tanks would reduce the cargo carrying capacity of a lighter by at least 20 percent more than its capacity would be reduced by the construction of fully segregated ballast tanks.
- (6) Any lighter which engages in lightering operations within California Coastal Waters after January 1, 1981, shall be in full compliance with the provisions of this Rule.
- (g) No owner or operator of a lighter shall unload, or allow the unloading of lightered organic liquid from any lighter at any port or berthing facility within the (Name) Air Pollution Control District if such lighter has not complied with the provisions of this Rule.
- (h) Severability  
If any portion of this Rule shall be found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the Rule, which shall continue to be in full force and effect. If this Rule is found to be unenforceable in any portion

of California Coastal Waters, it shall remain in full force and effect in all other portions of California Coastal Waters.

- (i) Notification of the intended arrival date of a parent vessel in California Coastal Waters shall be made to the Executive Officer (or Air Pollution Control Officer) of the District at least 48 hours prior to the arrival of the vessel. Such notification shall include the parent vessel's name, size, quantity of cargo carried, destination, date and approximate time of arrival in California Coastal Waters, and destination of cargo. Upon receipt of such notification the Executive Officer (or Air Pollution Control Officer) of the District may request additional information relating to the pending lightering operation.

10. PAPER AND FABRIC COATING OPERATIONS

MODEL RULE FOR PAPER AND FABRIC COATING  
OPERATIONS

(FEBRUARY 7, 1979)

State of California

AIR RESOURCES BOARD

February 7, 1979

Model Rule for Paper and  
Fabric Coating Operations

1. After (2 years from date of adoption) a person shall not discharge into the atmosphere more than 120 grams of volatile organic compounds per liter of coating as applied, excluding water, from any paper, fabric, or film coating application process involving the use of heating ovens.
2. The provisions of Section 1 of this rule shall not apply to:
  - a. any coating application process which emits less than 6.5 kilograms of volatile organic compounds per day;
  - b. The use of paper, fabric, or film coatings which emit or may emit less than 265 grams of volatile organic compounds per liter of coating as applied, excluding water.
3. Containers for organic solvents and mixing tanks for coatings containing organic solvent shall be free from leaks and shall be covered except when adding or removing materials, cleaning, or when the container is empty.
4. Definitions
  - a. "Paper coating" means any coating applied on or impregnated into paper, including, but not limited to, adhesive tapes and labels, book covers, post cards, office copier paper, drafting paper, and pressure sensitive tape.

- b. "Fabric coating" means any decorative or protective coating or reinforcing material applied on or impregnated into textile fabric or vinyl coated textile fabric or vinyl sheets.
- c. "Film coating" means any coating applied in a web coating process on any film substrate other than paper or fabric, including, but not limited to typewriter ribbons, photographic film, magnetic tape, and metal foil gift wrap, but excluding coatings applied to packaging used exclusively for food and health-care products for human or animal consumption.
- d. "Application process" means any portion of a paper, fabric, or film coating line where surface coatings are applied and/or cured, including the coating applicator and heating ovens.
- e. "Volatile organic compound" means any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and methane) that has a vapor pressure greater than 0.1 mm of Hg at standard condition.

11. STORAGE OF ORGANIC LIQUIDS

MODEL RULE FOR THE STORAGE OF ORGANIC  
LIQUIDS

(AUGUST 26, 1977)

State of California  
AIR RESOURCES BOARD

Model Rule For The Storage of Organic Liquids

August 26, 1977

(a) No person shall place, store or hold in any stationary tank, reservoir or other container of more than 150,000 liters (39,630 gallons) capacity, any organic liquid having a true vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressures sufficient at all times to prevent organic vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, properly maintained and in good operating order:

(1) A floating roof, consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is equipped with a closure device between the tank shell and roof edge. Except as provided in paragraphs (a)(1)(C) and (D), the closure device shall consist of two seals, one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred to as the secondary seal. Seal designs shall be submitted to the Air Pollution Control Officer and shall not be installed or used unless they are approved by the Air Pollution Control Officer as meeting the criteria set forth in paragraphs (a)(1)(A) through (a)(1)(D), as applicable.

(A) For a closure device on a welded tank shell which uses a metallic-shoe-type seal as its primary seal:

(1) gaps between the tank shell and the primary seal shall not exceed 3.8 centimeters (1-1/2 inches) for an accumulative length of 10 percent,

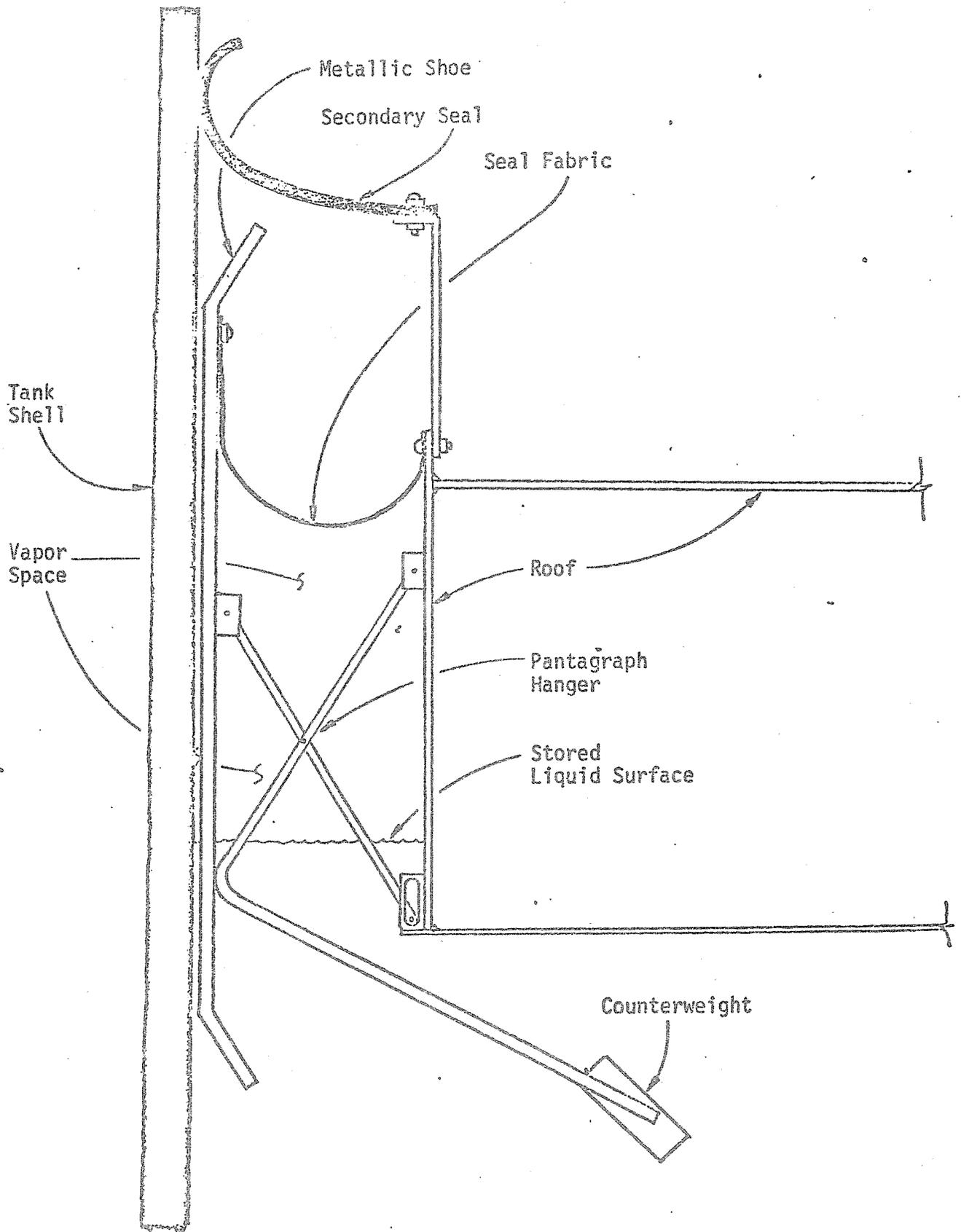
1.3 centimeters (1/2 inch) for another 30 percent, and 0.32 centimeters (1/8 inch) for the remaining 60 percent of the circumference of the tank. No gap between the tank shell and the primary seal shall exceed 3.8 centimeters (1-1/2 inches). No continuous gap greater than 0.32 centimeters (1/8 inch) shall exceed 10% of the circumference of the tank.

(ii) Gaps between the tank shell and the secondary seal shall not exceed 0.32 centimeters (1/8 inch) for an accumulative length of 95 percent of the circumference of the tank, and shall not exceed 1.3 centimeters (1/2 inch) for an accumulative length of the remaining 5 percent of the circumference of the tank. No gap between the tank shell and the secondary seal shall exceed 1.3 centimeters (1/2 inch).

(iii) Metallic-shoe-type seals installed on or after November 1, 1977 shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 61 centimeters (24 inches) above the stored liquid surface.

(iv) The geometry of the shoe shall be such that the maximum gap between the shoe and the tank shell is no greater than double the gap allowed by the seal gap criteria for a length of at least 46 centimeters (18 inches) in the vertical plane above the liquid surface. There shall be no holes or tears in, or openings which allow the emission of organic vapors through the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric. (A typical metallic-shoe-type seal with a pantagraph-type hanger is shown in Figure 1. This sketch is for illustrative purposes only and does not constitute endorsement of any product or company.)

Figure 1  
Metallic-Shoe-Type Seal



(v) The secondary seal shall allow easy insertion of probes up to 3.8 centimeters (1-1/2 inches) in width in order to measure gaps in the primary seal.

(vi) The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal.

(vii) The owner or operator of any container subject to paragraph (a)(1)(A), and which is installed after November 1, 1977, shall comply with the requirements of paragraph (a)(1)(A) at the time of installation.

(viii) The owner or operator of any existing container which requires modification to comply with paragraph (a)(1)(A)(ii) shall be in compliance by May 1, 1979, and shall comply with the following increments of progress:

(I) January 1, 1978. Submit to the Air Pollution Control Officer a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this rule.

(II) April 1, 1978. Negotiate and sign initial contracts for emission control systems, or issue orders for the purchase of component parts to accomplish emission control.

(III) May 1, 1978. Initiate on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(IV) May 1, 1979. Complete on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(B) For a closure device which uses a resilient-toroid-type seal as its primary seal:

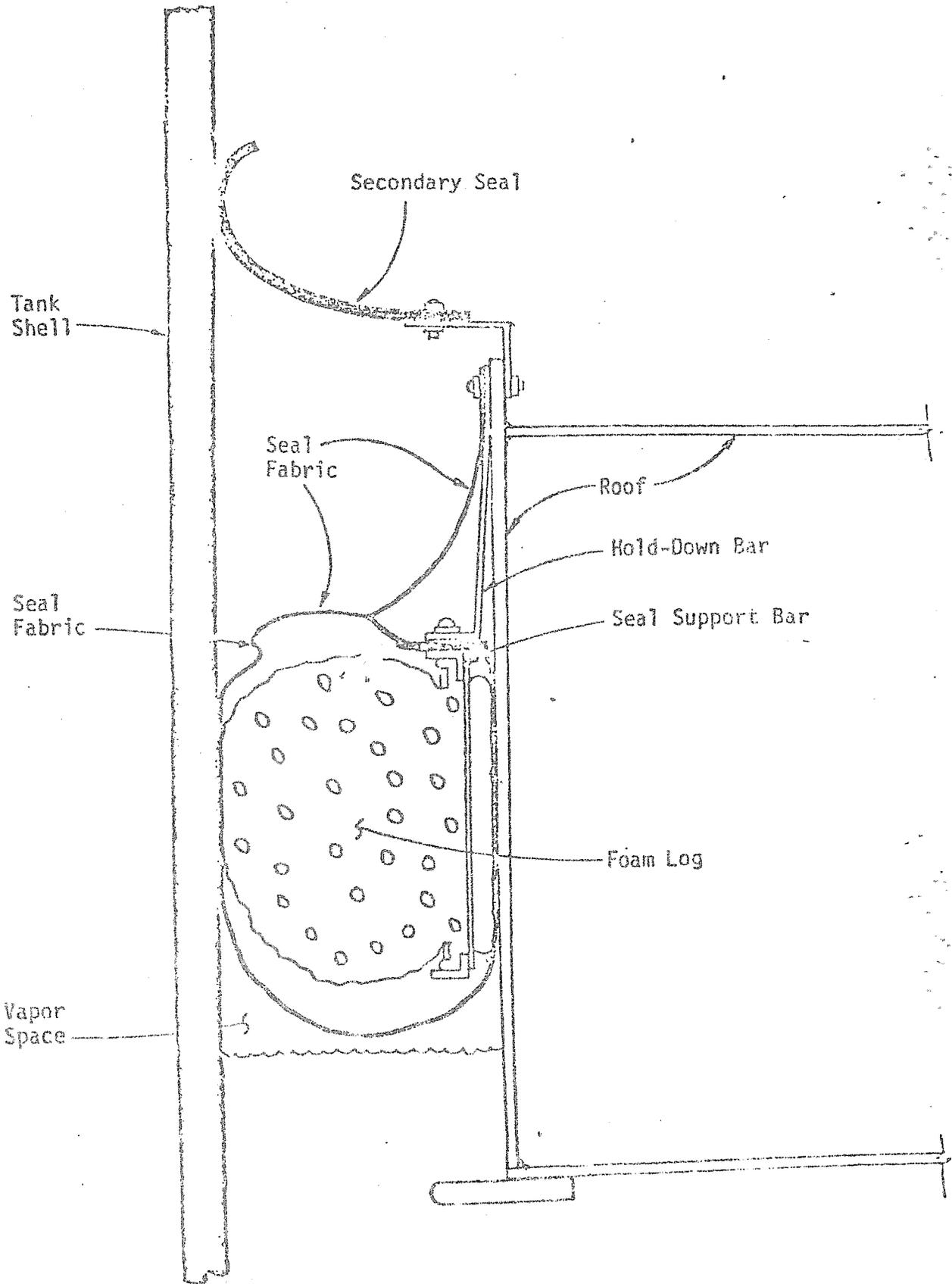
(i) If installation was or is commenced prior to November 1, 1978, gaps between the tank shell and the primary seal shall not exceed 0.32 centimeters (1/8 inch) for an accumulative length of 95 percent of the circumference of the tank, and shall not exceed 1.3 centimeters (1/2 inch) for an accumulative length of the remaining 5 percent of the tank circumference. No gap between the tank shell and the primary seal shall exceed 1.3 centimeters (1/2 inch).

(ii) If installation was or is commenced prior to November 1, 1978, gaps between the tank shell and the secondary seal shall not exceed 0.32 centimeters (1/8 inch) for an accumulative length of 95 percent of the circumference of the tank, and shall not exceed 1.3 centimeters (1/2 inch) for an accumulative length of the remaining 5 percent of the tank circumference. No gap between the tank shell and the secondary seal shall exceed 1.3 centimeters (1/2 inch). (A typical resilient-toroid-type seal with resilient-foam-type filling is shown in Figure 2. This sketch is for illustrative purposes only and does not constitute endorsement of any product or company.)

(iii) If installation is commenced after November 1, 1978, the tank owner or operator shall, prior to installation, demonstrate to the Executive Officer that the closure device controls vapor loss with an effectiveness equivalent to a closure device on a welded tank which meets the requirements of paragraph (a)(1)(B). The Air Pollution Control Officer shall determine whether equivalence exists in accordance with paragraph (a)(1)(D). If equivalence is demonstrated using primary or secondary seal gap criteria (if any) different from the criteria specified in paragraphs (a)(1)(B)(i) or (ii), those criteria shall be controlling for all purposes of this rule in lieu of the criteria specified in paragraphs (a)(1)(B)(i) and (ii).

Figure 2

Resilient-Toroid-Type Seal



(iv) There shall be no holes or tears in, or openings which allow the emission of organic vapors through the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, seal fabric and secondary seal.

(v) The secondary seal shall allow easy insertion of probes up to 1.3 centimeters (1/2 inch) in width in order to measure gaps in the primary seal.

(vi) The secondary seal shall extend from the roof of the tank to the shell and not be attached to the primary seal.

(vii) The owner or operator of any existing container which requires modification to comply with paragraph (a)(1)(B)(ii) shall comply with the schedule of increments of progress and final compliance date set forth in paragraph (a)(1)(A)(viii).

(C) For a closure device on a riveted tank shell which uses a metallic-shoe-type seal as its primary seal:

(i) Effective November 1, 1977, the closure device shall consist of at least one seal. Gaps between the tank shell and the seal shall not exceed 6.4 centimeters (2-1/2 inches) for an accumulative length of 10 percent of the circumference of the tank, and shall not exceed 3.8 centimeters (1-1/2 inches) for an accumulative length of the remaining 90 percent of the circumference of the tank. No gap between the tank shell and the seal shall exceed 6.4 centimeters (2-1/2 inches). In addition, any existing secondary seal or other vapor loss control device shall remain in place and comply with the same gap criteria.

(ii) Effective May 1, 1980, the closure device shall consist of two seals, one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred to as the secondary seal. The closure device shall control vapor loss with an effectiveness equivalent

to a closure device on a welded tank which meets the requirements of paragraph (a)(1)(A). The Air Pollution Control Officer shall determine whether equivalence exists in accordance with paragraph (a)(1)(D). Gaps between the primary and secondary seals and the tank shell shall not exceed the gaps (if any) associated with the closure device approved as equivalent by the Air Pollution Control Officer, and shall be controlling for all purposes of this rule.

(iii) Metallic-shoe-type seals installed on or after November 1, 1977 shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 61 centimeters (24 inches) above the stored liquid surface. The geometry of the shoe shall be such that the maximum gap between the shoe and the tank shell is no greater than double the gap allowed by the seal gap criteria for a length of at least 46 centimeters (18 inches) in the vertical plane. (A typical metallic-shoe-type seal with a pantagraph-type hanger is shown in Figure 1. This sketch is for illustrative purposes only and does not constitute endorsement of any product or company.)

(iv) There shall be no holes or tears in, or openings which allow the emission of organic vapors through the envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric.

(v) Any secondary seal shall allow easy insertion of probes up to 6.4 centimeters (2-1/2 inches) in width in order to measure gaps in the primary seal.

(vi) Any secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal.

(vii) The owner or operator of any existing container which requires modifications to comply with paragraph (a)(1)(C)(ii) shall be in compliance by May 1, 1980 and shall comply with the following increments of progress:

(I) November 1, 1978. Submit to the Air Pollution Control Officer a final control plan which describes, as a minimum, the steps, including a construction schedule, that will be taken to achieve compliance with the provisions of this rule.

(II) March 1, 1979. Negotiate and sign initial contracts for emission control systems, or issue orders for the purchase of component parts to accomplish emission control.

(III) April 1, 1979. Initiate on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(IV) April 1, 1980. Complete on-site construction or installation of emission control equipment as indicated on the construction schedule submitted with the final control plan.

(D) The requirements of paragraphs (a)(1)(A) through (a)(1)(C) shall not apply to any person who demonstrates to the Air Pollution Control Officer that a closure device has been installed, or will be installed, which by itself or in conjunction with other vapor loss control devices, controls vapor loss at all tank levels with an effectiveness equivalent to a closure device on a welded tank which meets the requirements of paragraph (a)(1)(A). The owner or operator of any tank with such a system, or proposed to be equipped with such a system, shall, prior to use or installation, demonstrate equivalence to the Air Pollution Control Officer as follows:

(i) By an actual emissions test in a full-size or scale sealed tank facility which accurately collects and measures all hydrocarbon emissions associated with a given closure device, and which accurately simulates other emission variables, such as temperature, barometric pressure and wind. The test facility shall be subject to prior approval by the Air Pollution Control Officer. Or,

(ii) by a pressure leak test, engineering evaluation or other means, where the Air Pollution Control Officer determines that the same is an accurate method of determining equivalence.

(E) The primary seal envelope shall be made available for unobstructed inspection by the Air Pollution Control Officer on an annual basis at locations selected along its circumference at random by the Air Pollution Control Officer. In the case of riveted tanks with toroid-type seals, eight such locations shall be made available; in all other cases, four such locations shall be made available. If the Air Pollution Control Officer detects one or more violations as a result of any such inspection, the Air Pollution Control Officer may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference.

In addition, for tanks with secondary seals installed after November 1, 1977, the primary seal envelope shall be made available for inspection by the Air Pollution Control Officer prior to installation of the secondary seal. Thereafter, and for tanks with secondary seals installed before November 1, 1977, the primary seal envelope shall be made available for unobstructed inspection by the Air Pollution Control Officer for its full length every 5 years after November 1, 1977, except that if the secondary seal is voluntarily removed by the owner or operator prior thereto, it shall be made available for such inspection at that time. The owner or operator shall provide notification to the Air Pollution Control Officer no less than 7 working days prior to voluntary removal of the secondary seal.

(F) All openings in the roof except pressure-vacuum valves, which shall be set to within ten percent of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps, except when the device or appurtenance is in use.

(G) Any emergency roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least nine-tenths of the area of the opening.

(H) A floating roof shall not be used if the organic liquid stored has a true vapor pressure of 569 mm Hg (11 psi) absolute or greater under storage conditions.

(2) A fixed roof with an internal-floating-type cover, provided the cover prevents the release or emission to the atmosphere of organic vapors or gases at an efficiency equivalent to a floating roof closure device which meets the requirements of paragraph (a)(1)(A). The Air Pollution Control Officer shall determine whether equivalence exists in accordance with paragraph (a)(1)(D).

(A) A fixed roof container with an internal-floating-type cover shall not be used if the organic liquid stored has a true vapor pressure of 569 mm Hg (11 psi) absolute or greater under storage conditions.

(B) Any existing fixed roof container which requires modification in order to comply with paragraph (a)(2) shall comply with the schedule of increments of progress and final compliance date set forth in paragraph (a)(1)(C)(vii).

(3)(A) A vapor recovery system, consisting of a system capable of collecting all organic vapors and gases, and a vapor return or disposal system capable of processing such vapors and gases, so as to prevent their emission

to the atmosphere at an efficiency of at least 95 percent by weight, if constructed on or after November 1, 1977.

(B) A system constructed before November 1, 1977 shall have a recovery efficiency of at least 90 percent by weight, and, by May 1, 1980, a recovery efficiency of at least 95 percent by weight.

(C) Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling.

(D) All piping, valves and fittings shall be constructed and maintained in a gas-tight condition, such that no organic vapor or gas leaks are detectable.

(E) Any container constructed before November 1, 1977 which requires modification in order to comply with the 90% recovery requirement in paragraph (a)(3)(B) shall comply with the schedule of increments of progress and final compliance date set forth in paragraph (a)(1)(A)(viii).

(F) Any container constructed before November 1, 1977 which requires modification in order to comply with the 95% recovery requirement in paragraph (a)(3)(B) shall comply with the schedule of increments of progress and final compliance date set forth in paragraph (a)(1)(C)(vii).

(4) Other equipment having a vapor loss control efficiency of at least 95 percent by weight, provided an application for installation of such equipment is submitted to and approved by the Air Pollution Control Officer.

(5) A person whose tanks are subject to paragraph (a) of this rule shall keep an accurate record of liquids stored in such containers and the true vapor pressure ranges of such liquids. The true vapor pressure in psi. absolute of stored liquid may be determined by using the nomographs contained in American Petroleum Institute Bulletin 2517 for conversion of Reid vapor pressure to true vapor pressure.

(b) A person shall not place, store or hold in any above-ground stationary tank, or other container of 150,000 liters (39,630 gallons) or less capacity any gasoline unless such tank is equipped with a pressure-vacuum valve which is set to within ten percent of the maximum allowable working pressure of the container, or is equipped with a vapor loss control device which complies with the requirements set forth in paragraph (a). The provisions of this paragraph shall not apply to any container of 7,570 liters (2,000 gallons) or less capacity installed and in service prior to January 9, 1976, nor to any container of 950 liters (251 gallons) or less capacity installed on or after January 9, 1976.

(c) Efficiency, as used in paragraphs (a)(3) and (4) means a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Base line emissions shall be calculated by using the criteria outlined in American Petroleum Institute Bulletin 2518.

(d) Any person who cannot comply with a requirement in this rule which takes effect as of a future date, or any schedule of increments of progress herein, shall submit to the Hearing Board a schedule of increments of progress by which compliance will be attained, in accordance with Health and Safety Code Section 41703.

(e) If any portion of this rule shall be found to be unenforceable, such finding shall have no effect on the enforceability of the remaining portions of the Rule, which shall continue to be in full force and effect.

12. VALVES AND FLANGES AT OIL REFINERIES

MODEL RULE LIMITING EMISSIONS OF VOLATILE  
ORGANIC COMPOUNDS FROM VALVES AND FLANGES  
AT PETROLEUM REFINERIES

(MAY 24, 1978)

State of California

AIR RESOURCES BOARD

Model Rule Limiting Emissions of Volatile Organic  
Compounds from Valves and Flanges at Petroleum Refineries  
(Adopted May 24, 1978)

Rule \_\_\_\_\_ Valves and Flanges at Petroleum Refineries

(1) Requirements for Valves and Flanges.

(A) A person shall not use any valve or flange at a petroleum refinery for handling volatile organic compounds unless such valve or flange does not allow the material being handled to leak into the atmosphere.

(B) Such valve or flange shall be deemed to be in violation of this provision if there is a visible liquid or indication of vapor emerging, or if there is a reading greater than 1,000 parts per million, expressed as propane, above background on an appropriate analyzer when the analyzer probe is held at the joining surfaces.

(C) A person shall not use any sampling valve on a line or vessel handling volatile organic compounds with a Reid vapor pressure equal to or greater than 80 millimeters of Mercury (mm Hg) (1.55 pounds per square inch) unless a second shut-off valve is located immediately upstream and both valves are shut off except when sampling occurs. This procedure is not intended to apply to close-coupled sampling valves or other specialized sampling installations that receive specific exemptions from the Air Pollution Control Officer.

(D) A person shall not use any valve, other than a valve on a product sampling line or a safety pressure relief valve, which is located at the end of a pipe or line containing volatile organic compounds unless such valve is sealed with a blind flange, plug, or cap when not in use. Specialized sampling valves exempted under Subsection (1)(C) shall be sealed with a plug, cap or other device when not in use.

(E) A person shall not install or use any new or reconditioned valve unless such valve meets the requirements of American Petroleum Institute Standard 598, "Valve Inspection and Test," 3rd edition, 1977.

(2) Inspection Schedule.

(A) All valves handling volatile organic compounds which are in the gas phase at standard conditions (29.92 inches of Mercury, 68<sup>0</sup>F) shall be marked so as to be readily identifiable. Every such valve shall have affixed a record of inspection which shall bear a legible record of all inspections for a twelve-month period. Alternative methods of record-keeping may be used, including the maintenance of records in a centralized plant office, provided the prior concurrence of the Air Pollution Control Officer has been obtained.

(B) All valves subject to Subsection (2)(A) shall be inspected for leaks at least once every three months. The inspection shall be accomplished by visually checking for an indication of vapor and by sampling with an appropriate analyzer. The result of "leak" or "no leak" shall be recorded on the inspection record along with the date of inspection and the inspector's initials.

(C) All valves handling volatile organic compounds which are in the liquid phase at standard conditions shall be visually inspected for leaks at least once every three months.

(D) All flanges shall be inspected for leaks by the methods set forth in Subsection (2)(B) and (2)(C) at least once every 12 months. All flanges which are located in areas which make inspection infeasible or unsafe for personnel are exempted from the inspection schedules in Subsections (2)(A), (2)(B), (2)(C) and (2)(D), provided the prior concurrence of the Air Pollution Control Officer has been obtained.

(3) Repair.

(A) Except as provided in Subsection (3)(B) below, any leak discovered by the procedure in Subsection (2) shall be repaired to a no-leak condition within 24 hours of discovery; if more than 24 hours is required for repair of a leaking valve or flange, a variance shall be applied for from the district hearing board. The date and time of repair for valve subject to Subsection (2)(A) shall be recorded on the valve inspection record.

(B) If safety considerations prevent the repair of any leaking valve or flange without the shut-down of an essential process unit, such repair shall be accomplished during the next shut-down of the essential process unit. If such shut-down will not occur within 24 hours of discovery, a variance shall be applied for from the district hearing board.

(C) A person shall be considered to be in violation of this subsection if a leaking valve or flange is not repaired within 24 hours and a variance has not been obtained for continued use of the valve or flange.

(4) Violations.

The failure of a person to meet any requirement of this rule shall constitute a violation of this rule.

(5) Definition. - As used in this rule,

(A) "background" is defined as the ambient concentration of volatile organic compounds determined at least three (3) meters up-wind from the valve or flange to be inspected and uninfluenced by any specific emission point.

(B) "appropriate analyzer" is defined as a hydrocarbon analyzer which uses the flame ionization detection method.

(C) "volatile organic compound" is defined as any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and methane) that has a vapor pressure greater than 1.0 mm of Hg at standard conditions.